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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/810,246	03/19/2001	John P. Wong	032885-001	8377

21839 7590 03/28/2003

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EXAMINER

ALAUBAIDI, HAYTHIM J

ART UNIT	PAPER NUMBER
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2171

DATE MAILED: 03/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/810,246

Applicant(s)

WONG, JOHN P.

Examiner

Haythim J. Alaubaidi

Art Unit

2171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. Claims 1-6, are presented for examination.

Priority

2. Applicant's claim for the benefit date of the provisional application under 35 U.S.C. §119(e) is acknowledged.

Specification

3. The abstract of the disclosure is objected to because it is more than 150 words. Correction is required. See MPEP § 608.01(j).

- (j) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-6, are rejected under 35 U.S.C. 102(b) as being anticipated by Donald D. Crouse (U.S. Patent No. 5,764,972 and Crouse hereinafter).

Regarding Claim 1, Crouse discloses:

mounting components of each of said two physical file systems in a single directory (Col 8, Lines 12-17, i.e. *the operating system program 20 will issue a mount command to the standard file control program 24 for a particular file tree 29, 38 in order to allow the user programs 22 at a particular user node 10 to have access to all of the files 26, 32 stored under that particular file tree 29, 38; see also Col 25, Lines 47-61; see also Col 4, Lines 25-29 and 34-41; see also Col 6, Lines 29-35, i.e. provide an archiving file system that operates on remote files by executing only in a networked data server, without the need to modify the standard file system that is native to a particular operating system program executing on the user nodes or the standard network file interfaces executing on the distributed computer network environment)*

a virtual file system data structure containing elements which respectively correspond to each of the mounted components (Col 3, Lines 11-12, i.e. Virtual Disk System, for example, there is no file system in the data server) each of said elements having an application interface data structure (Col 3, Lines 13-15, i.e. *a program that is directly integrated with the NFS (Network File System) remote file interface manages the storage of data on the remote secondary storage system*) with two associated pointers that respectively point to application interface data structure of a corresponding component in each of said two physical file system (Col 11, Lines 48-51, i.e. *a root directory pointer 86 that points to an inode 74 that containing the logical address of the directory blocks that store the files and directories in the root*

directory for the file tree 38; see also Col 14, Lines 34-37; see also Figure No. 2, Element No. 10 and 14).

Regarding Claim 2, Crouse discloses Vnode (Col 10, Lines 44-54).

Regarding Claim 3, Crouse discloses directories and files (Col 7, Line 65 through Col 8, Line 25).

Regarding Claim 4, Crouse discloses:

mounting components of each of said two physical file systems in a single directory (see the citation of the first limitation of Claim No. 1, above), such that a copy of each component is stored in each of said two physical file system (Col 21, Lines 3-5; see also Col 25, Lines 28-32)

receiving a request to perform a write operation (Col 12, Lines 45-50¹; se also Col 1, through Col 2, Line 2; see also Col 7, Lines 55-56, i.e. accepts requests from the network 12 to access a remote file 32 stored on that data server ; see also Col 16, Lines 5-6, i.e. Access Identifies whether the access mode for the media is read, write or read/write)²

performing said write operation on both copies of said one component in said two physical file systems (Col 21, Lines 3-16, i.e. *In the preferred embodiment, up to four different copies of a backup/archive image of a remote file 42 can be created*) in real time (Col 9, Lines 39-41; see also Col 20, Lines 1-5).

¹ Please note that the Examiner is interpreting the "write" operation to be similar to a (save or store or commit, etc...).

² Please note that the Examiner is trying to establish that a "request to access a file" is the same as a "request to write".

Regarding Claim 5, Crouse discloses path name (Col 25, Lines 62-65, i.e. *FIG. 16b shows the steps for an open file command 420 to open a remote file 42 on the file tree 44. First, the 10 module 188 looks up the pathname for the remote file 42).*

Regarding Claim 6, Crouse discloses acquiring a lock (Col 26, Lines 50-56, i.e. *A check is made to see if the write through option is set (step 470). If not, the communication buffers can be unlocked (step 472) before the cache buffer is written to the device (step 474). Otherwise, the cache buffer is written to the device (step 476) and then the communication buffer is unlocked (step 478) before the write command is completed (step 479)*)³.

Other Prior Art Made of Record

6. a. Vahalia et al. (U.S. Patent No. 6,192,408) discloses a network file server sharing local caches of file access information in data processors assigned to respective file systems;

b. Chin et al. (U.S. Patent No. 6,000,020) discloses a hierarchical storage management from a mirrored file system on a storage network segmented by a bridge; and

c. Yanai et al. (U.S. Patent No. 5,544,347) discloses a data storage system controlled remote data mirroring with respectively maintained data indices.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

³ Please note that "unlocking" is an indication that a lock was performed earlier.

Points of Contact

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haythim J. Alaubaidi whose telephone number is (703) 305-1950. The examiner can normally be reached on Monday - Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached on (703) 308-1436.

Any response to this office action should be mailed to:

The Commissioner of Patents and Trademarks, Washington, D.C. 20231 or telefax at our fax number (703) 746-7238 or (703) 746-7239 or (703) 746-7240.

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, 6th Floor Receptionist, Arlington, Virginia. 22202.

Haythim J. Alaubaidi

Haythim J. Alaubaidi
Patent Examiner
Technology Center 2100
March 21, 2003


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